

**TRANSLATION****PATENT COOPERATION TREATY****PCT****INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P33546-P0</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/JP2004/007006</b>	International filing date (day/month/year) <b>17.05.2004</b>	Priority date (day/month/year) <b>03.10.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>G06F17/50, H01L21/82, H03K19/00</b>		
Applicant <b>MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>35</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table><tr><td><input checked="" type="checkbox"/></td><td>Box No. I</td><td>Basis of the report</td></tr><tr><td><input type="checkbox"/></td><td>Box No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/></td><td>Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td><input type="checkbox"/></td><td>Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VI</td><td>Certain documents cited</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. VIII</td><td>Certain observations on the international application</td></tr></table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report																								
Name and mailing address of the IPEA/JP	Authorized officer																								
Facsimile No.	Telephone No.																								

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/007006

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))  
☐ publication of the international application (Rule 12.4)  
☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1-4, 6, 15-17, 20-67 as originally filed/furnished

pages\* 5, 5/1, 7-14, 18-19/1 received by this Authority on 18.03.2005

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

nos. 2-6, 8, 9, 11, 12, 15, 17, 21, 23, 26-34, 38-40 as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* 1, 7, 10, 14, 16, 18-20, 22, 24, 25, 35-37 received by this Authority on 18.03.2005

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

sheets fig. 1-38 as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☒ the claims, nos. 13

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/007006

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-12, 14-40	YES
	Claims		NO
Inventive step (IS)	Claims	1-12, 14-40	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12, 14-40	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
Document 1: JP 2001-160622 A (NEC Corp.), 12 June 2001, claims 1 and 5 & US 2001/0002707 A1			
Document 2: JP 10-301983 A (NEC Corp.), 13 November 1998, abstract, paragraph [0015] and fig. 4 and 5 (Family: none)			
Document 3: JP 8-194726 A (Fujitsu Ltd.), 30 July 1996, paragraphs [0006] to [0007] and claim 2 & US 5706477 A			
Explanations			
<p>Document 1 discloses a technique that employs a model wherein a resistor (and a voltage controlled current source) has (have) been inserted between the gate and the drain as well as between the gate and the source.</p> <p>However, the reasons for the insertion of the resistors and the sites where the resistors are inserted in the model that is disclosed in document 1 are different from the reasons and the sites in the inventions that are set forth in claims 1 to 12 and 14 to 40 of the present application.</p> <p>Document 2 discloses a technique that employs the resistor (r1), the resistor (r2), the resistor (Rp) and</p>			

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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the resistor (Rd) when carrying out power consumption calculations that reflect both the through current and the leak current; however, the reasons for the insertion of the resistors and the sites where the resistors are inserted in the technique that is disclosed in document 2 are different from the reasons and the sites in the inventions that are set forth in claims 1 to 12 and 14 to 40 of the present application.

Document 3 discloses a technique whereby the logic information and the wiring information are converted into a circuit model using the sub-circuits that have been stored in the sub-circuit storage unit in order to reduce the number steps that are necessary for the creation of a simulation model; however, the technique in question does not involve the insertion of resistors, and thus differs from the inventions that are set forth in claims 1 to 12 and 14 to 40 of the present application.

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## Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

With regards to the invention set forth in claim 1, it is impossible to specify the relationship (e.g. the proportion or the like) of the resistance value of the resistance element that is inserted into the power source side and the resistance value of the resistance element that is inserted into the reference electric potential side. As a result, it is impossible to specify the resulting electric potential of the gate terminal during an analysis of the invention in question. Such being the case, the technical significance of the insertion of the resistance elements is unclear in the light of the disclosure in claim 1. In addition, the relationship between the insertion of the resistors and the detection of the through current is also unclear. The same is true with regards to the other claims.